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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,802	03/26/2007	Fritz-Peter Pleschiutchnigg	HM-675PCT	7340

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FRIEDRICH KUEFFNER  
317 MADISON AVENUE, SUITE 910  
NEW YORK, NY 10017

EXAMINER
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MCGUTHRY BANKS, TIMA MICHELE

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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12/14/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,802	<b>Applicant(s)</b> PLESCHIUTSCHNIGG ET AL.	
	<b>Examiner</b> TIMA M. MCGUTHRY-BANKS	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status of Claims***

Claims 1-5, 9 and 12 are currently amended, Claims 6-8, 10 and 11 are as previously presented and Claims 13-19 are cancelled.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 6-9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al (US 5,991,991) in view of Pleschiutchnigg et al (US 5,832,985), Mabuchi et al (US 6,096,137), JP 406100949 A and Dittrich et al (US 2004/0154437).

Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi, JP '949 and Dittrich et al is applied as discussed in the office action mailed 4/27/2009. Regarding the selection of process route (a), Dittrich et al teaches a desired final microstructure by using degassing (reducing the final content of dissolved gases) under vacuum and a ladle.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Dittrich et al, as applied to claim 1 above, and further in view of JP 2000087128 (Derwent abstract) and JP 10130713 (Derwent abstract).

Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi, JP '949, Dittrich et al, JP '128 and JP '713 is applied as discussed in the office action mailed 4/27/2009.

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Claims 1 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949, Pleschiutchnigg et al (US 2003/0230163) and Rose et al (US 6,238,453 B1).

Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi, JP '949 and Pleschiutchnigg et al '163 is applied as discussed in the office action mailed 4/27/2009.

Regarding the selection of process route (b), Pleschiutchnigg et al '163 teaches an EAF with two vessels and a ladle, and refers to DE 19621143 A1 (also Rose et al) to describe the process of using parallel vessels. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the parallel vessels as described in Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi, JP '949 and Pleschiutchnigg et al '163 to achieve a desired final microstructure, since Rose et al teaches that this process results in a base metal with a final analysis with austenites, ferrites and martensites (column 2, lines 15-18).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949, Pleschiutchnigg et al '163 and Rose et al as applied to claim 1, and further in view of JP '713.

Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi, JP '949, Pleschiutchnigg et al '163, Rose et al and JP '713 is applied as discussed in the office action mailed 4/27/2009.

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Claims 1, 4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Gero (US 3,523,785).

Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Gero is applied as discussed in the office action mailed 4/27/2009. Regarding the selection of process route (c), Gero teaches a desired final microstructure by degassing.

Claims 1 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Keilman et al (US 4,390,362).

Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Keilman et al is applied as discussed in the office action mailed 4/27/2009. Regarding the selection of process route (d), Keilman et al teaches that vacuum degassing removes materials that can cause porosity, flaking, embrittlement, voids, inclusions and other undesirable conditions after the steel after it is solidified.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Dittrich et al, Pleschiutchnigg et al '163 and Rose et al, Gero or Keilman et al as applied to claim 1 above, and further in view of Cornet et al (US 6,821,356 B2).

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Pleschiutchnigg et al '991 in view of Pleschiutchnigg et al '985, Mabuchi et al, JP '949 and Dittrich et al, Pleschiutchnigg et al '163 and Rose et al, Gero or Keilman et al and Cornet et al is applied as discussed in the office action mailed 4/27/2009.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. However, applicant has not filed a certified copy of German patent 103 25 955.4. Therefore, priority is based on the 371 date, which is 5/25/2004.

### ***Response to Arguments***

Applicant's arguments with respect to the drawings have been fully considered and are persuasive. The objection of the drawings has been withdrawn.

Applicant's arguments filed 10/30/2009 with respect to the claims have been fully considered but they are not persuasive. Applicant argues that the references neither individually nor combined present any teaching that would make the presently claimed invention obvious, specifically the step of selecting a process route from the options recited in Claim 1 according to a final microstructure. The examiner addresses this argument based on the claims as amended in the rejections above. The selection of the process routes for a desired microstructure is taught by the cited prior art since each process route impacts the microstructure as described above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMA M. MCGUTHRY-BANKS whose telephone number is (571)272-2744. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Wyszomierski/  
Primary Examiner  
Art Unit 1793

/T. M. M./  
Examiner, Art Unit 1793  
12 December 2009